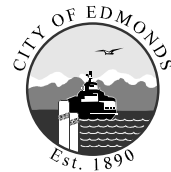


## city of edmonds development information



# Fire Alarm/Fire Sprinkler/Fire Connection Permit Submittal Requirements

**PERMIT REQUIRED:** A **Fire Alarm Permit** is required for installation or alteration of existing Fire Alarm systems. Plans must be submitted for approval and the permit must be issued prior to start of work.

A **Fire Sprinkler Permit** is required for the installation or alteration of Fire Sprinkler Systems including relocation of individual heads. City Code requires that an automatic sprinkler system be installed throughout every building constructed under the International Residential Code containing five (5) or more attached dwelling units. Fire Sprinkler plans must be submitted for approval and the permit must be issued prior to start of work.

A **Fire Connection Permit** is required for new construction installation of all underground water supplies for fire protection purposes.

**CODES:** International Building & International Fire Code 2006 Edition  
NFPA National Fire alarm Code  
NFPA 13 Standard for the Installation of Sprinkler Systems  
NFPA 24 Standard for the Installation of Private Fire Service Mains  
Edmonds Community Development Code 19.25 and City Code Title 7  
City Ordinance #2724, effective 6/27/89

<b>FEE:</b>	Fire Alarm:	Please refer to City fee schedules
	Fire Sprinkler:	Please refer to City fee schedules
	Fire Connection:	Please refer to City fee schedules.

### SUBMITTAL REQUIREMENTS:

1. Permit Application [Form A](#)
2. General Notes
3. Calculations and Specifications
4. For Fire Alarms: Three (3) copies Fire Alarm Plans
5. For Fire Sprinkler Systems: Three (3) copies of Fire Sprinkler plans stamped by FS Certificate of Competency Holder
6. For Fire Connection Lines: Three (3) copies Civil plans stamped by a registered Professional Engineer or a Level III Fire Sprinkler Contractor showing fire line material, size, depth, etc.

**Note:** *The State of Washington law for licensed contractors (RCW 18.160) requires that a licensed Fire Sprinkler System Contractor be listed on the face of the permit prior to permit issuance. Plans for Fire Sprinkler Systems must be designed and stamped by a Certified Fire Sprinkler Competency Holder.*

# **FIRE ALARM PERMIT SUBMITTAL REQUIREMENTS**

- 1. GENERAL NOTES:** Attach or include on the working drawings:
  - a. Property address, name, address, phone number of the property owner and contact person for the project
  - b. Clearly indicate the floor or suite number where the proposed system will be installed
  - c. Designate the use of rooms, spaces, tenant space or compartment (i.e., office, retail, medical, deli, storage, mechanical, electrical, kitchen, etc.)
- 2. WORKING DRAWINGS:** Three (3) copies, 11"x17" minimum size, with the following:
  - a. Floor plans showing equipment location of all alarm initiating and alarm signaling devices, alarm control and annunciation equipment
  - b. Provide material specifications and cut sheets of all initiating, signaling, control and annunciation equipment, include make, model and listing information
- 3. CALCULATIONS AND SPECIFICATIONS:** Three (3) copies of the following:
  - a. Battery Calculations
  - b. Provide voltage drop calculations and conductor type and sizes
  - c. Hardware Specifications
  - d. Listing Information, etc.

## **IMPORTANT INFORMATION**

The Fire Chief shall be notified when any required fire alarm system is placed temporarily out of service and upon restoration of service. The location of the locked FACP, remote annunciator panels and access keys shall be approved by the Fire Marshal prior to permit issuance. The written operating instructions for all panels and annunciators shall be stored at the location of these units. Manual fire alarm panels shall be installed no more than 54 inches above the finished floor surface. All State of Washington accessibility requirements (WAC 51-40-1106.15) must be met for access, signage and visible alarms.

## **FIRE STOP PROTECTION REQUIREMENTS**

Through-penetration fire stops shall have an F or T rating as determined by tests conducted in accordance with IBC Section 712. Through-penetration fire stops may be used for membrane penetrations. The F rating shall apply to through penetrations and shall not be less than the required fire resistance rating of the assembly penetrated. The T rating shall apply to through penetration locations required to have T ratings as specified in IBC 711 and shall not be less than the required fire resistance rating of the assembly penetrated. Type F fire stop material shall be provided around wall or membrane penetrations and/or floor and ceiling penetrations. Type T fire stop material shall be provided for pipes and conduits larger than four (4) inches in diameter at penetrations of floor membranes, above corridor ceilings not required to be part of the assembly, and where they penetrate below any ceiling adjacent to walls requiring protected openings.

## **INSPECTION REQUIREMENTS**

Inspections are conducted by the City Fire Marshal during normal business hours. Call (425) 771-0215 a minimum of 24 hours in advance. The fire alarm permit number, address of site, name of building owner must be provided in order to schedule an inspection. Upon completion of the installation, the installer shall prove to the satisfaction of the Fire Marshal that all functions of the new or added system works as designed. Written certification that the system was installed in conformance with the approved plans and specifications shall be provided by the installer to the Fire Marshal at final inspection. A yearly alarm maintenance and test program, done by third party testing companies, shall be set up by the owner who shall provide it to the Fire Marshal at final inspection.

# **FIRE SPRINKLER PERMIT SUBMITTAL REQUIREMENTS**

- 1. GENERAL NOTES:** Attach or include on the working drawings:
  - a. Property address, name, address, phone number of the property owner and contact person for the project
  - b. Clearly indicate the floor or suite number where the proposed system will be installed
  - c. Designate the use of building or tenant space (i.e., office, retail, medical, etc.)
  - d. Specify type of construction of the building (i.e., Type IA, IIB, VA, VB, etc.)
- 2. WORKING DRAWINGS:** Three (3) copies, 11"x17" minimum size with the following:
  - a. *Note: plans must be stamped by Fire Sprinkler Certificate of Competency Holder*
  - b. Floor plans showing equipment location and fire head location(s).
  - c. Provide material specifications and cut sheets of all heads, devices, and equipment
  - d. Equipment rooms shall be detailed with a typical wall and floor/ceiling framing section view.
- 3. CALCULATIONS AND SPECIFICATIONS:** Three (3) copies of the following:
  - a. Hydraulic Calculations,
  - b. Fire Flow Rates, etc.

## **IMPORTANT INFORMATION**

**Altering existing rooms to accommodate systems:** If a fire sprinkler equipment room is needed and an existing room or storage area is altered to accommodate this equipment, provide an existing floor plan and proposed floor plan of the room. Note: a building permit is also required.

**Altering existing parking spaces to accommodate systems:** When parking garages are altered to accommodate fire sprinkler rooms and parking spaces are altered, relocated or removed; provide an entire parking lot plan showing the total number of existing spaces. Clearly indicate the location and number of parking spaces that will be removed and note headroom clearance. NOTE: Parking spaces that are removed may have to be provided elsewhere on site or an alternate option, as permitted by the Edmonds Community Development Code, (contact a City Planner for code options) may be used in order to meet City parking regulations (subject to review and approval by the City). Rarely can parking spaces be removed that have no consequence to these parking requirements. Contact the City Planning Division if you have questions regarding the minimum number of parking spaces required.

## **FIRE STOP PROTECTION REQUIREMENTS**

Through-penetration fire stops shall have an F or T rating as determined by tests conducted in accordance with IBC Section 712. Through-penetration fire stops may be used for membrane penetrations. The F rating shall apply to through penetrations and shall not be less than the required fire resistance rating of the assembly penetrated. The T rating shall apply to through penetration locations required to have T ratings as specified and shall not be less than the required fire resistance rating of the assembly penetrated. Type F fire stop material shall be provided around wall or membrane penetrations and/or floor and ceiling penetrations. Type T fire stop material shall be provided for pipes and conduits larger than four (4) inches in diameter at penetrations of floor membranes, above corridor ceilings not required to be part of the assembly, and where they penetrate below any ceiling adjacent to walls requiring protected openings.

## **INSPECTION REQUIREMENTS**

Inspections are conducted by the City Fire Marshal during normal business hours. All portions of the system must be under test and be observed by the Fire Marshal unless specifically waived. The fire sprinkler permit number, address of site, name of building owner must be provided in order to schedule an inspection. Call (425) 771-0215 a minimum of 24 hours in advance. After Fire Department approval contact the City Building Inspector by calling (425) 771-0220 extension 1333 to schedule for a final building inspection.

# **FIRE CONNECTION PERMIT SUBMITTAL REQUIREMENTS**

- 1. GENERAL NOTES:** Attach or include on the working drawings:
  - a. Property address, name, address, phone number of the property owner and contact person for the project
  - b. Clearly indicate the floor or suite number where the proposed system will be installed
  - c. Designate the use of building, tenant space or compartment (i.e., office, retail, medical, deli, storage, mechanical, electrical, kitchen, etc.)
- 2. WORKING DRAWINGS:** Three (3) copies, 11"x 17" minimum, show the following:
  - a. Building footprint
  - b. All valves, vault location, post indicating valve
  - c. Fire Department Connection (FDC) and piping to include size and material
  - d. All thrust blocking and pipe restraints
  - e. Piping materials, size, depth, etc.
  - f. A registered professional engineer or a level III Fire Sprinkler Contractor must design and stamp the plans.
- 3. CALCULATIONS AND SPECIFICATIONS:**  
Provide three (3) copies of Hydraulic Calculations.

## **INSTALLATION REQUIREMENTS**

Fire sprinkler underground piping is defined as "that section of underground pipe dedicated exclusively to the fire sprinkler system, that runs from the sprinkler riser to the last valve, that if closed, shuts off only the fire sprinkler system." There are two (2) types of installations permitted:

1. The first type, listed under the following Section 1, may be used in most cases when the backflow protection, vault and equipment are installed at the property line.
2. The second type, listed under the following Section 2, may be used when the back flow protection and equipment can be located in the building within 10 feet of the property line.

Note: All materials shall meet or exceed City of Edmonds approved materials list.

### **Section 1**

1. Domestic and fire protection services are to be enclosed in separate vaults. For combination systems, see 2006 International Building Code Sections 903 for specific requirements.
2. Point of connection to supply main shall require a *minimum* of one (1) isolation valve. A three-way valve cluster may be required by the Engineering Department.
3. Backflow protection equipment shall be located in a vault to grade at the property line, not to exceed 60 feet from the point of connection to supply main.
4. An approved double detector check valve assembly (DDCVA) as listed with the Washington State Department of Social and Health Services shall be installed. A State Certified Backflow Assembly Tester shall test the assembly upon installation and the test report must be provided to the City of Edmonds Water Department. Annual tests are required thereafter and must be submitted on a yearly basis to the City Water Department.
5. The detector meter shall be a Sensus brand 5/8"x 3/4" SRII, cubic foot registry with remote reading capability (TRPL). The remote register touchpad shall be mounted in the vault lid near the lid hinge point.
6. Fire Department Connection shall be located in the yard no less than 50 feet from the Primary Fire Apparatus Access, or at a location approved by the Fire Marshal.

## **Section 2**

1. Point of connection to supply main shall require a *minimum* of one isolation valve. A three-way valve cluster may be required by the Engineering Department.
2. A second isolation valve or Post Indicator Valve as required by Fire Marshal shall be required at the property line.
3. Backflow protection equipment shall be located within the building no farther back than 10 feet from the property line on private property.
4. An approved double detector check valve assembly (DDCVA) as listed with the Washington State Department of Social and Health Services shall be installed. A State Certified Backflow Assembly Tester shall test the assembly upon installation and the test report must be provided to the City of Edmonds Water Department. Annual tests are required thereafter and must be submitted on a yearly basis to the City Water Department.
5. The detector meter shall be a Sensus brand 5/8"x 3/4" SRII, cubic foot registry with remote reading capability (ECR). The remote register touchpad shall be mounted on the exterior building wall adjacent to the fireline three (3) to five (5) feet above finished grade.
6. Fire Department Connection shall be located in the yard no less than 50 feet from the Primary Fire Apparatus Access or at an approved location by the Fire Marshal.

## **INSPECTION REQUIREMENTS**

Inspections are conducted by the City Fire Marshal and the Engineering Division during normal business hours. The fire connection permit number, address of site, name of building owner must be provided in order to schedule an inspection. A witnessed hydro/flush and static test shall be performed and observed by the Fire Marshal. Call the Fire Department at (425) 771-0215 and Engineering Division at (425) 771-0220 extension 1326 a minimum of 24 hours in advance. Final inspection by the City Cross Connection Control Inspector is also required. Call (425) 771-0235 extension 1644 a minimum of 24 hours in advance.

NOTE: THE PURPOSE OF THIS HANDOUT IS TO ASSIST THE PUBLIC IN COMPLYING WITH DETAILED PERMIT SUBMITTAL REQUIREMENTS. IT IS NOT A COMPLETE LIST OF PERMIT OR CODE REQUIREMENTS AND SHOULD NOT BE USED AS A SUBSTITUTE FOR APPLICABLE LAWS AND REGULATIONS. IT IS THE RESPONSIBILITY OF THE OWNER/DESIGN PROFESSIONAL TO REVIEW THE SUBMITTAL FOR COMPLETENESS AND APPLICABILITY TO OTHER CODES. ONLY COMPLETE APPLICATIONS WILL BE ACCEPTED BY THE CITY FOR REVIEW.